

waste-grounds a longer list of plants than Brown University. On the 19th of September, in a rapid inspection of the campus, I recorded 118 species, representing 41 natural orders. As often happens in such localities, there was an odd jumble of garden and wild plants. I have no idea that I exhausted the list, which, it must be remembered also, represents but one season.—W. W. BAILEY.

MISCELLANEOUS NOTES.—On Monday, October 6th, I found on the college campus *Cornus paniculata*, L'Her, simultaneously in fruit and flower. *Viola pedata* is having a second period of blossoming, and a friend in Vermont writes me that as late as October 1st she gathered Hepaticas in flower.

Mrs. Kilburn, of Lonsdale, R. I., sent me the *Leptopoda brachyptera*, Torr. and Gray, from Lincoln, R. I. I visited the locality and found the plant abundant and spreading. The original owner of the estate, called Quinsnickett, introduced many things in the neighborhood, which are now well established, and perhaps this. Almost at the same time, Mr. J. L. Bennett found *Helenium autumnale*, L., in the same town. It is convenient to have a locality for these plants within easy reach.—W. W. BAILEY, *Brown University*.

NEW SPECIES OF FUNGI, by Chas. H. Peck.—AGARICUS (COLLYBIA) AMABILIPES.—Pileus thin, convex or expanded, glabrous, reddish-yellow and striatulate on the thin margin when moist, reddish-brown or chestnut-colored when dry; lamellæ broad, not crowded, subventricose, rounded behind, pale-yellow, venoseconnected; stem equal, stuffed or hollow, velvety, tawny-brown; spores elliptical, .0003 of an inch long.

Plant 2-3 inches high, pileus about 1 inch broad, stem 1-2 lines thick.

Decaying wood. Sheboygan, Wisconsin. July. *J. J. Brown*.

This pretty species is related to *A. velutipes*, from which it differs in its more scattered mode of growth, more slender stem, and different spores. Its pileus also is not viscid and shrivels less in drying.

BOVISTA SUBTERRANEA.—Subgregarious, immersed in the soil; peridium subglobose, about one inch in diameter, the exterior whitish, covered by dense mycelioid filaments and adhering dirt, at length separable from the smooth flexible interior peridium; capillitium and spores brown, the flocci long, slender, flexuous, simple or sparingly branched, the spores globose, rough, .00025—.0003 of an inch in diameter.

Grassy ground. Dakota Territory. July. *C. W. Irish*.

I have referred this fungus to the genus *Bovista*, although it is a remarkable and somewhat aberrant species. The external peridium is coated with fine whitish mycelioid filaments which permeate the surrounding soil and bind it together so that the plant is enveloped in a coat of dirt which adheres closely to it. When mature this peridium with its adhering dirt may be separated from the inner peridium in large flakes or even almost entire. When the plants are taken from their place of growth the basal part of this peridium remains in the ground unless care is taken to secure the whole plant. The specimens are not quite old enough to show the mode of rupture of the inner peridium. The flocci are more slender and less branched than is usual in species of *Bovista*. There is no mass of cellular tissue at the base of the peridium, the whole cavity being filled with the capillitium and spores, which are of a pale snuff color. Concerning its habit and habitat Mr. Irish writes, that the plants do not grow upon the top of the ground, but are sunk in it, the upper part just reaching the surface. As seen from above they present the appearance of that fungus that resembles bird-lime scattered over the ground. They grow in little communities occupying from three to five square feet and always in thick grass. Their crowns are covered with a closely adhering scale or scales of soil and the lower part of the whitish envelope always parts from the plant on taking it out of its bed.

GYMNOSPORANGIUM SPECIOSUM.—Eruptent in tuberculiform or oblong laterally-compressed masses, orange colored; spores large, elliptical or oblong, uniseptate or biseptate, often strongly constricted at the septum, .002-.003 of an inch long, .0008-.0011 of an inch broad, the pedicel about .0003 of an inch thick.

Bark of *Juniperus occidentalis*. Colorado. T. S. Brandegee. Communicated by E. A. Rau.

This species retains its bright orange-yellow color in the dry state, a peculiarity by which it is readily distinguished from the other American species, *G. juniperianum*, *G. biseptatum* and *G. clavipes*. The spores in this are also rather larger than in the other species. They are often biseptate but the greater number are uniseptate.

PUCCINIA ABERRANS.—Spots none; sori amphigenous, generally confluent, dark reddish-brown; spores oblong or oblong-clavate, obtuse or obtusely pointed, constricted at the septum, occasionally biseptate, .0016-.0024 of an inch long, .0008-.001 of an inch broad, the pedicel very short or obsolete.

Leaves of *Smelowskia calycina*. Alta. Wasatch Mts., Utah. Altitude 12,000 feet. M. E. Jones.

The species is remarkable for frequently producing bisepate spores; in which character it approaches the genus *Phragmidium*. Sometimes two or three of these spores are visible at once in the field of the microscope, so numerous are they.

Puccinia INTERMIXTA.—Spots none; sori abundant, scattered, often intermingled with the *Æcidium*, amphigenous, dark reddish-brown; spores oblong-elliptical, obtuse, slightly constricted at the septum, .0014–.0016 of an inch long, .0008–.0009 of an inch broad; pedicel very short or none.

Leaves of *Iva axillaris*. Green River, Wyoming Territory. July. *M. E. Jones*.

Puccinia Physalidis.—Spots none; sori abundant, frequently confluent and occupying the whole lower surface of the leaf, reddish-brown; spores elliptical or oblong-elliptical, often irregular, slightly constricted at the septum, .0012–.0016 of an inch long, .0008–.001 of an inch broad; pedicel hyaline, nearly equal to the spore in length.

Leaves of *Physalis viscosa*. Colorado. June. *M. E. Jones*.

SOROSPORIUM ASTRAGALI.—Spore-masses subglobose, compact, .001–.002 of an inch in diameter, purplish-brown, destroying the seeds and filling the pod; spores six to twelve in a mass, minutely rough, closely adhering to each other and somewhat flattened on their contiguous faces, subglobose, .0006–.0008 of an inch in diameter.

In the pods of *Astragalus Drummondii*. Colorado. May. *M. E. Jones*.

The species is closely related to *S. Desmodii*, but its spores are more minutely rough and have a decidedly darker purplish-brown color. It fills the whole pod with its dusty mass, not even leaving the external coat of the seeds.

TRICHOBASIS OXYTROI.—Spots none; sori scattered or crowded, amphigenous, reddish-brown; spores obovate or broadly elliptical, minutely rough, .001 of an inch long, .0007 of an inch broad.

Leaves of *Oxytropis Lamberti*. Colorado. *T. S. Brandegee*. Communicated by *E. A. Rau*.

TRICHOBASIS GAURINA.—Sori few, scattered, erumpent, dark-brown; spores subglobose or elliptical, minutely rough, .0008–.001 of an inch long, generally containing a shining nucleus.

Leaves of *Gaura coccinea*. Colorado. June. *M. E. Jones*.

ÆCIDIUM GAURINUM.—Peridia amphigenous, numerous, scattered or crowded, generally occupying the whole lower surface of the leaf, scattered on the upper surface, short; spores subglobose, bright-yel-

low or orange, 0006-0008 of an inch in diameter, generally containing one to three shining nuclei.

Leaves of *Gaura coccinea*. Colorado. June. M. E. Jones.

This and the preceding one are probably forms of one species which may yet occur as a *Puccinia* or a *Uromyces*.

NOTES FROM TOLEDO, OHIO.—*Schollera graminea* grows on muddy shores of Maumee Bay less than 2 inches high, leaves about 1 inch long, the seeds maturing near the surface of the mud, the perianth tube varying from $\frac{1}{2}$ to 1 inch long, just barely pushing the flower above the water's surface. Dr. Beardslee, of Painesville, O., found the same form at the termination of the Welland Canal on Lake Ontario.

Solidago rigida, when growing in shaded situations, frequently has leaves with a very soft pubescence. *Liatris spicata* and *L. scariosa* both have a vanilla scent in drying. In the former the fragrant principle is in the flowers mainly, but in the latter the leaves are most fragrant. Dr. Beardslee observes that *L. elegans* is also fragrant.

Amarantus Blitum, growing here, invariably has strongly reflexed branches and especially so late in the season, making a very marked difference in its outline and that of *Amarantus albus*. Both grow abundantly on the Wabash Railroad.

A form of *Zizania aquatica* with purple glumes and stems grows in the Maumee River here with the ordinary form.

Solidago altissima, 1 to 3 feet high is plenty here and is now in full bloom. Mr. G. Butler called attention to this form a year or so ago in the GAZETTE.

I found *Cornus stolonifera* in full bloom August 25.

Lactuca scariola grows on the banks of the Maumee River apparently without cultivation.—J. A. SANFORD.

NOTES FROM OTTAWA, ILL.—I have recently found *Petalostemon foliosus* in abundance in this town, and have specimens to exchange, particularly for ferns. Have found *Lycopodium Selago* and *Poterium Canadense* in this vicinity.—H. L. BOLTWOOD.

UNUSUAL GROWTH IN RHUS TOXICODENDRON.—On the side of a steep bank of the Mauvais Terre Creek, Morgan Co., Ill., safe from the unfriendly axe of farmers, there is growing a *Rhus Toxicodendron* which measures 14 inches in circumference two feet from the ground and 11 inches 5 feet higher up. About 12 feet of the lower half of the stem clings to a tree in the usual manner. The remaining 10 or 15